

### **REMARKS**

The applicant respectfully requests reconsideration in view of the amendment and the following remarks. Support for amended claim 1 can be found in the specification at pages 9 and 10. The applicant has previously argued this feature. The Examiner stated that this feature was not in the claims. The applicant believes that this feature does not raise new consideration or require a further search since this limitation was previously argued. In addition, the applicant has cancelled the withdrawn claims (claims 20-22).

Claims 1-9 are rejected under 35 U.S.C. 102(b) as being unpatentable by US 5212269 (Fischer). Claims 1-15, 17-19, 23, 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 2002/077060, cited with US equivalent 7288617 (Treacher et al.) in combination with US 2003/0164499 (Chen et al) as evidences by US 5650456 (Yun). The applicant respectfully traverses this rejection.

#### **Rejections under 35 U.S.C. 102(b)**

Claims 1-9 are rejected under 35 U.S.C. 102(b) as being unpatentable by Fischer. In the reply to the last Office Action, the applicant has pointed out that the polymer of Fischer is a non-conjugated polymer, having 3 non-conjugated units (Sp, D and A) and only 1 conjugated unit (B).

Furthermore, the applicant pointed out that in contrast to the disclosure of Fischer, according to applicant's claim 1 only "conjugated polymers oligomers and dendrimers" are claimed, which do not only contain a conjugated unit, but are conjugated in total.

The Examiner at page 6 of the office action does not agree with the applicant's definition of "conjugated polymers". In his opinion, the term "conjugated polymers" is interpreted as "polymer having conjugated fragments". The applicant respectfully disagrees with the Examiner, because in the specification at page 4, lines 1-4 of the applicant's specification the following is stated:

"For the purpose of this invention, conjugated polymers are polymers which contain principally  $sp^2$ -hybridised (or optionally also  $sp$ -hybridised) carbon atoms, which may also be

replaced by corresponding heteroatoms, in the main chain. In the simplest case, this means the alternating presence of double and single bonds in the main chain, ....."

Again, Fischer is a non-conjugated polymer, having 3 non-conjugated units (Sp, D and A) and only 1 conjugated unit (B). For the above reasons, this rejection should be withdrawn.

### **Rejections under 35 U.S.C. 103(a)**

Claims 1-15, 17-19, 23, 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 2002/077060, cited with Treacher in combination with Chen as evidences by Yun.

With respect to this rejection the applicant has been pointed out in the applicant's previous response that the unit of formula (III) of Treacher is used as a "hole-transporting unit" whereas the unit of formula (21) of the present application is used as a "light emitting unit". The Examiner stated in the last paragraph of the final office at page 6 that the light emitting unit is not claimed. Now the applicant has claimed a light emitting unit.

At page 7 of the Office action, the Examiner disagrees that the applicant has properly compared comparative Example VI. The applicant respectfully disagrees. With respect to the comparison of polymer P1 and comparative polymer V1, the following must be considered:

Both polymers of example 4 and comparative example VI are identical with respect to 90 mol% of their recurring units (i.e. 50 mol% of monomer M1, 30 mol% of monomer M2 and 10 mol% of monomer M3) (see page 9 of the specification). They differ only in that the inventive polymer contains 10 mol% of a coumarin-unit (CUM1), whereas the comparative polymer contains 10 mol% of a unit of monomer M4. As can be seen from Figure 1 of the present application, this slight difference of both polymers has a significant influence concerning their properties, especially their photoluminescence.

In addition, as pointed out in the applicant's last response that comparative polymer VI already contains 10 mol% of a repeating unit (derived from monomer M3) which contains triarylamine units. These triarylamine units are identical with Formula (III) of Treacher.

Nevertheless, the life span as well as the photoluminescence of this polymer is very bad, as can also be seen from Figure 1 of the present application (see also page 18, last paragraph of the specification). The comparative standard only emits half of the original photoluminescence after less than 30 minutes. Therefore, the applicant's claimed invention is unexpectedly superior than the prior art. The applicant's claimed invention is not obvious with respect to the cited prior art. For the above reasons, this rejection should be withdrawn.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 14113-00011-US from which the undersigned is authorized to draw.

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Respectfully submitted,

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